

## GRAPHIC ENGINE FOR HANDLING SUB-PIXEL REGIONS IN A RESOURCE- CONSTRAINED DEVICE

Dongren Chen

### ABSTRACT

A method for determining areas of sub-pixel regions formed by edges in a pixel includes receiving a first fill style to a first side of an edge, a second fill style to a second side of the edge, and a projected area of the edge to the second side of the edge. The method further includes determining if there is a sub-pixel region in the cell having the first fill style. If so, the method further includes (1) incrementing an area of the sub-pixel region by the difference between the unit area of the pixel and the projected area, and (2) modularizing the area by the unit area of the pixel. If not, the method further includes saving in the cell a sub-pixel region having (1) the first fill style and (2) an area equal to a difference between a unit area of the pixel and the projected area.